

REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed June 3, 2003. In the Office Action, the Examiner notes that claims 2-21 are pending of which claims 2-21 are rejected. By this amendment, the applicants have amended claim 20 and claims 2-19 and 21 continue unamended.

In view of both the amendments presented above and the following discussion, the applicants submit that none of the claims now pending in the application are non-indefinite, anticipated, or obvious under the respective provisions of 35 U.S.C. §112, §102, and §103. Thus, the applicants believe that all of these claims are now in allowable form.

DRAWINGS

Since the Examiner has indicated that the drawings filed on July 22, 1999 are objected to by the Examiner and that applicant may not request that any objection to the drawing(s) be held in abeyance, submitted herewith are formal drawings to be substituted for the informal drawings filed with the application.

CLAIM OBJECTIONS

The Examiner has objected to claim 20 indicating that the term "of for" in line 2 should be replaced with "for". Claim 20 has been amended as indicated by the Examiner. Therefore, the applicants respectfully request that the Examiner's objection be withdrawn.

THE REJECTIONS

a. Double Patenting

The Examiner has rejected claims 2-8 and 14 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of Ludvig et al. U.S. Patent No. 6,415,437, issued July 2, 2002 (hereinafter Ludvig). Claim 15 has been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 and 10-13 of Ludvig and in view of Eyer et al. U.S. Patent No. 5,801,753, issued September 1, 1998 (hereinafter Eyer).

1. Claims 2-8 and 14.

The applicants agree to file a Terminal Disclaimer to resolve the present double patenting rejection when the subject matter of this patent application is finally allowed. As such, the applicants will file a Terminal Disclaimer in accordance with 37 C.F.R. §1.321 in the future, if necessary.

2. Claims 15-21.

Claim 15 recites:

"A method of producing an encoded user interface, said encoded user interface comprising a plurality of bitstreams representing respective interactive program guide (IPG) pages and forming thereby a sequence of IPG pages, said method comprising:

combining, in a frame synchronized manner, background imagery with each of a plurality of video sequences to form a plurality of IPG video portions;

overlaying a plurality of respective graphic images containing program guide information over respective ones of each of said plurality of IPG video portions to form a plurality of IPG page portions, each of said plurality of IPG page portions comprising a respective common video portion and a plurality of programming information portions, and wherein a plurality of IPG page sequences comprises common programming information portions and differing video portions per IPG page sequence;

encoding each sequence of IPG pages within a head-end of an information distribution system to form said plurality of bitstreams;

providing a unique packet identifier (PID) for each IPG page; and

multiplexing said plurality of bitstreams in a common transport stream to subscriber equipment." (emphasis added).

The limitation of providing a unique packet identifier (PID) for each IPG page is not recited in any of the Ludvig claims. As such, the applicants submit that there is no obviousness-type double patenting regarding claim 15.

Regarding claim 15-21, the applicants agree to file a Terminal Disclaimer to resolve the present double-patenting rejection when the subject matter of this patent application is finally allowed. As such, the applicants will file a Terminal Disclaimer in accordance with 37 C.F.R. §1.321 in future, if necessary. Accordingly, obviousness-type rejection using the Ludvig reference is no longer proper.

Furthermore, the Eyer reference fails to teach or suggest the applicants' invention as a whole. In particular, the Eyer reference fails to teach or suggest "overlaying a plurality of respective graphic images containing program guide information over respective ones of each of said plurality of IPG video portions to form a plurality of IPG page portions, each of said plurality of IPG page portions comprising a respective common video portion and a plurality of programming information portions, and wherein a plurality of IPG page sequences comprises common programming information portions and differing video portions per IPG page sequence."

By contrast, the Eyer reference merely discloses that IPG packets can be packetized using either a few PIDs or many PIDs (see, Eyer, col. 7, lines 9-10). Moreover, the Eyer reference fails to teach or suggest "encoding each sequence of IPG pages within a head-end of an information distribution system to form said plurality of bitstreams." Therefore, the Eyer reference fails to teach or suggest the applicants' invention as a whole.

As such, the applicants submit that independent claim 15 is not obvious in view of the Ludvig and Eyer references in the judiciary created doctrine of obviousness-type double patenting. Therefore, the applicants respectfully request that the rejection be withdrawn.

b. 35 U.S.C. §103

1. Claims 2-10 and 14-16

The Examiner has rejected claims 2-10 and 14 as being obvious under 35 U.S.C. §103 over Terasawa et al. U.S. Patent No. 6,147,714, issued November 14,

2000 (hereinafter "Terasawa") and in view of Berezowski et al. U.S. Patent No. 6,064,376, issued May 16, 2000 (hereinafter "Berezowski"). The applicants respectfully traverse the rejection.

The applicants' independent claim 2 recites:

"A method of producing an encoded user interface comprising:
producing a video frame sequence representing an interactive
program guide by combining, in a frame synchronized manner,
background imagery with at least one video sequence and at least one
graphic containing program guide information to form said video frame
sequence;
encoding said video frame sequence within a head end of an
information distribution system." (emphasis added).

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention, Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 USPQ 416, 420 (Fed. Cir. 1986) (emphasis added). The combination of Terasawa and Berezowski fail to teach the applicants' invention as a whole.

The Terasawa reference discloses an information program guide having a graphical component and still pictures, which are produced by the JPEG encoder 109. Nowhere in the Terasawa reference is there any teaching or suggestion of providing a sequence of IPG pages wherein for each page sequence the graphical component remains constant and the video component changes per IPG page. By contrast, the Terasawa reference discloses that each page of the IPG includes a graphical component and a video component that are the same on each page, since the video component is a JPEG image forming a still picture (see Terasawa, column 3, lines 35-49). Therefore, the Terasawa reference fails to teach or suggest the applicants' invention as a whole, since it fails to teach or disclose "each of said at least one sequence of IPG pages comprising a respective common video portion and a common plurality of programming information portions."

As discussed above, the Terasawa reference discloses combining still pictures from a JPEG encoder with a background and a graphical overlay to produce a program guide, which displays a still picture. Nowhere does the Terasawa reference disclose combining a video sequence in the video frame sequence. That is, the applicants' invention recites limitations for a video sequence to be combined with background imagery and the graphic containing a program guide information, as opposed to Terasawa which utilizes a still image provided from a JPEG encoder.

The Berezowski reference fails to bridge the substantial gap as between the Terasawa reference and the applicants' invention. In particular, Berezowski discloses a television distribution facility 20, which is preferably a cable system headend, that distributes convention television channels and a program guide channel to television units 24 over television distribution links 26. (See, Berezowski, col. 4, lines 35-49). A local promotion unit 28 accepts video, control, and data streams from main facility 18 and accepts locally supplied video and graphics information (e.g., for local logos, graphics, advertising videos, etc.). Main facility 18 preferably provides a continuous stream of video signals for the upper left and upper right quarters of a standard display screen. A video control stream contains commands synchronized to the content in the global video stream. (See, Berezowski, col. 4, lines 61 to col. 5, line 21). Furthermore, the data provided at input 34 preferably includes the television schedule data needed to generate television program listings. Program listings in region 40 are preferably provided as a scrolling list, but may be provided in the form of a series of successfully displayed pages of program listings, if desired. (See, Berezowski, col. 5, lines 45-47 and col. 6, lines 27-30).

Nowhere in the Berezowski reference is there any teaching or suggestion of combining, in a framed synchronized manner, background imagery with at least one video sequence and at least one graphic containing program guide information to form said video-framed sequence. That is, the Berezowski reference is completely devoid of any teaching or suggestion of including background imagery in the IPG sent to the subscriber set top boxes.

For prior art reference to be combined to render obvious a subsequent invention under 35 U.S.C. § 103, there must be something in the prior art as a whole, which

suggests the desirability, and thus the obviousness, of making the combination. Uniroyal v. Rudkin-Wiley, 5 U.S.P.SQ.2d 1434, 1438 (Fed. Cir. 1988). The teachings of the references can be combined only if there is some suggestion or incentive in the prior art to do so. In re Fine, 5 U.S.P.SQ.2d 1596, 1599 (Fed. Cir. 1988). Hindsight is strictly forbidden. It is impermissible to use the claims as a framework to pick and choose among individual references to recreate the claimed invention Id. at 1600; W.L. Gore Associates, Inc., v. Garlock, Inc., 220 U.S.P.Q. 303, 312 (Fed. Cir. 1983).

In this instance, the Terasawa fails to teach or suggest the desirability of using a video-frame sequence representing an interactive-program guide by combining the frame synchronized matter, back around imagining with at least one video sequence and at least one graphic containing program guide information to form a video-frame sequence. Moreover, the Berezowski reference fails to teach or suggest including background imagery with at least one video sequence and at least one graphic containing program guide information to form the video-frame sequence. That is, the prior art references fail to solve the problem of having an interactive program guide by combining background imagery with at least one video sequence and at least graphic containing program guide information to form a video-frame sequence. By contrast, the applicants have solved the problem of providing an interactive program guide by combining in a frame synchronized manner, background imagery with at least one video sequence, and at least one graphic containing program guide information to form the video-frame sequence. Therefore, there is no incentive to combine the two references, since they address different problems. Moreover, the applicants have provided a novel interactive program guide by combining, in a frame synchronized manner, background imagery with at least one video sequence and at least one graphic containing program guide information to form the video frame sequence. Accordingly, the combined references fail to teach or suggest the applicants' invention as a whole.

As such, the applicants submit that claims 2 and 15 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Furthermore, claims 3-14 and 16 depend, either directly or indirectly, from independent claims 2 and 15 and recite additional features thereof. As such, and for at least the same reasons as discussed above, the applicants submit that these dependent claims are also not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are

patentable thereunder. Therefore, the applicants respectfully request that the rejections be withdrawn.

2. Claims 11-13

The Examiner has rejected claims 11-13 as being obvious under 35 U.S.C. §103 over Terasawa in view of Berezowski and further in view of Civanlar et al. (U.S. Patent 5,623,308, issued April 22, 1997, hereinafter "Civanlar"). The applicants respectfully traverse the rejection.

Claims 11-13 respectively depend from independent claim 2 and recite additional features thereof. In particular, claim 11, when combined with independent claim 2 recites in part:

“A method of producing an encoded user interface comprising:
producing a video frame sequence representing an interactive
program guide by combining, in a frame synchronized manner,
background imagery with at least one video sequence and at least one
graphic containing program guide information to form said video frame
sequence;
encoding said video frame sequence within a head end of an
information distribution system.” (emphasis added).

The teaching of the Terasawa and Berezowski references have been discussed above with respect to the 103 rejection of independent claim 2. In particular, the applicants submit that there is no incentive to combine the Terasawa and Berezowski references, since neither reference provides any incentive or desire to produce a video-frame sequence representing an interactive program guide by combining, in a framed synchronized manner, background imagery with at least one video sequence, and at least one graphic containing program guide information to form such video-frame sequence.

Furthermore, the Civanlar reference fails to bridge the substantial gap as between the Terasawa and Berezowski reference, and the applicants' invention. In particular, Civanlar reference merely discloses an encoding system that converts a frame of pixel data of an input video signal into a plurality of component frames of pixel data having different resolutions, and then combines into a common combined frame, each of the component frames. The pixel data

in the combined frame is supplied as an input frame to the MPEG coder, which processes the data as if the pixel data in the input video frame was derived from a single image, numbering the slice-start code (SSC) and the macroblock address increment (MAI) in the slices output stream according to the position of the slices in the combined frame. By constraining each slice to contain coded and compressed pixel data for no more than one of the component frames along each row, each slice is attributed to a particular one of the different resolution component frames within the common frame. The output bit stream of the MPEG coder can thus be demultiplexed, in accordance with the SSC and MAI of each slice, into separate different resolution bitstreams without decoding the slices. (See, Civanlar, col. 3, lines 16 to col. 4, line 39).

Nowhere in the Civanlar reference is there any teaching or suggestion of using a video-frame sequence representing an interactive program guide by combining, in a framed synchronized manner, background imaging with at least one video sequence and at least one graphic containing program data information to form said video-frame sequence. The combination of Terasawa, Berezowski and Civanlar fail to teach or suggest the applicants' invention as a whole.

As such, the applicants submit that claim 11 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Furthermore, claims 12 and 13 recite, in part, similar limitations as recited in claim 11. As such, and for at least the same reasons as discussed above, the applicants submit that these dependent claims are also not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Therefore, the applicants respectfully request that the rejections be withdrawn.

3. Claims 17-21

The Examiner has rejected claims 17-21 as being obvious under 35 U.S.C. §103 over Terasawa in view of Berezowski and further in view of Chen et al. U.S. Patent 5,917,830, issued June 29, 1999 (hereinafter "Chen"). The applicants respectfully traverse the rejection.

Claims 17-21 respectively depend from independent claim 15 and recite additional features thereof. In particular, claim 17 recites in part:

“A method of producing an encoded user interface, said encoded user interface comprising a plurality of bitstreams representing respective interactive program guide (IPG) pages and forming thereby a sequence of IPG pages, said method comprising:

combining, in a frame synchronized manner, background imagery with each of a plurality of video sequences to form a plurality of IPG video portions; overlaying a plurality of respective graphic images containing program guide information over respective ones of each of said plurality of IPG video portions to form a plurality of IPG page portions, each of said plurality of IPG page portions comprising a respective common video portion and a plurality of programming information portions, and wherein a plurality of IPG page sequences comprises common programming information portions and differing video portions per IPG page sequence;

encoding each sequence of IPG pages within a head-end of an information distribution system to form said plurality of bitstreams; providing a unique packet identifier (PID) for each IPG page; and multiplexing said plurality of bitstreams in a common transport stream to subscriber equipment.” (emphasis added).

As discussed above, neither the Terasawa nor Berezowski reference, either singularly or in combination, teaches or suggests the applicants' invention as a whole. In particular, the Terasawa fails to teach or suggest the desirability of using a video-frame sequence representing an interactive-program guide by combining the frame synchronized matter, back around imagining with at least one video sequence and at least one graphic containing program guide information to form a video-frame sequence. Moreover, the Berezowski reference fails to teach or suggest including background imagery with at least one video sequence and at least one graphic containing program guide information to form the video-frame sequence. That is, the prior art references fail to solve the problem of having an interactive program guide by combining background imagery with at least one video sequence and at least graphic containing program guide information to form a video-frame sequence. By contrast, the applicants have solved the problem of providing an interactive program guide by combining a frame synchronized manner, background imagery with at least one video sequence, and at least one graphic containing program guide information to form the video-frame sequence. Therefore, there is no incentive to combine the two references

since they address different problems. Moreover, the applicants have provided a novel interactive program guide by combining, in a frame synchronized manner, background imagery with at least one video sequence and at least one graphic containing program guide information to form the video frame sequence.

As such, the combination of Terasawa and Berezowski fails to teach the applicants' invention as a whole, since the two references fail to teach or suggest

“overlaying a plurality of respective graphic images containing program guide information over respective ones of each of said plurality of IPG video portions to form a plurality of IPG page portions, each of said plurality of IPG page portions comprising a respective common video portion and a plurality of programming information portions, and wherein a plurality of IPG page sequences comprises common programming information portions and differing video portions per IPG page sequence;
providing a unique packet identifier (PID) for each IPG page;”

Furthermore, the Chen reference fails to bridge a substantial gap as between the Terasawa and Berezowski references and the applicants' invention. In particular, Chen merely discloses splicing a secondary packetized data stream, such as a commercial, where the primary packetized data stream, such as a network television program. In particular, the transition back from the commercial to the main program, a post-splicing packet from the main program which follows the pre-splicing packet is determined. Typically, the post-splicing packet will have a sequence start code which follows a sequence end code which is associated with the last packet of the commercial. The post-splicing packet is positioned to follow the last packet of the commercial in the output stream. Moreover, processing of the post-splicing packet is analogous to processing of the pre-splicing packet. Specifically, data in the post-splicing packet which is associated with an immediately preceding packet, which may or may not be the same as pre-splicing packet, is discarded to prevent a discontinuity at the decoder (See, Chen, col. 2 lines 54 to col. 3, line 3).

However, the Chen reference fails to teach or even suggest

“overlaying a plurality of respective graphic images containing program guide information over respective ones of each of said plurality of IPG video portions to form a plurality of IPG page portions, each of said plurality of IPG page portions comprising a respective common video portion and a plurality of

programming information portions, and wherein a plurality of IPG page sequences comprises common programming information portions and differing video portions per IPG page sequence; and
providing a unique packet identifier (PID) for each IPG page;"

Therefore, the three references either singularly or in combination, fail to teach or suggest the applicants' invention as a whole.

As such, the applicants submit that claims 17-21 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Therefore, the applicants respectfully request that the rejections be withdrawn.

CONCLUSION

The applicants believe all the claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of an adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Steven M. Hertzberg, Esq. or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

9/3/03

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